

San Francisco Bay Conservation and Development Commission

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August 9, 2019

TO: Bay Fill Policies Working Group Members

FROM: Steve Goldbeck, Deputy Director (415/352-3611; steve.goldbeck@bcdca.gov)

Jessica Fain, Planning Director (415/352-3642; jessica.fain@bcdca.gov)

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SUBJECT: July 18, 2019 Commission Bay Fill Policies Working Group Draft Meeting Summary

1. Roll Call, Introductions, and Approval of Agenda. Acting Chair Commissioner Jim McGrath called the meeting to order at the Bay Area Metro Center, 375 Beale Street, Ohlone Room, First Floor, San Francisco, California at 10:40 a.m., and asked everyone to introduce themselves.

Bay Fill Policies Working Group members in attendance included Deputy Director Steve Goldbeck, Chief of Federal Consistency and Permits Erik Buehmann, Planning Director Jessica Fain, Planning Manager Shannon Fiala, Sediment Program Manager Brenda Goeden, Coastal Scientist Megan Hall, Sediment Project Analyst Anniken Lydon, and Coastal Scientist Jaclyn Mandoske. Also in attendance were former Commissioner Ms. Patricia Showalter, Ashley LaBass, Bay Planning Coalition; Kelly Malinowski, State Coastal Conservancy; Nixon Lam, SFO; Rinaldi Wibowo, SFO.

2. Approval of April 26, 2019 Meeting Minutes. The Working Group members approved the meeting summary for April 26, 2019 as presented.

MOTION: Commissioner Showalter moved approval of the Minutes, seconded by Commissioner Galacatos. The motion carried with by voice vote with no abstentions or objections.

3. Discussion of Public Comment and Changes to Draft Language. Ms. Hall presented the following: We want to today to give a very brief recap of what happened at the public hearing. We will go through public comments we have received. Today I will talk in broad strokes of what we heard. We will also discuss what we are thinking of in terms of initial responses to those comments. In some cases, we will reconsider how to address these comments.

Commissioner Ziegler asked: What might be the most challenging thing? It seems like it might be Middle Harbor.

Ms. Hall explained: Today we are going to be focusing on the most challenging sticking points. We did receive at least one comment on almost every finding and policy, and this

included comments even on those we weren't changing. Today the goal is to talk about the main comments received. There was a lot of commonality across the statements we received. Here you see all the organizations from which we received comments. We have a good representation of different organizations interested in this. The tone of the comments and the public meetings was overall positive.

I will talk about comments that the staff thinks are outside the scope of this amendment. We did get comments asking for more language in areas that do fall outside of our scope.

Ms. Goeden stated: We did have a couple of meetings with our regulatory staff team to review the comments.

Ms. Hall continued: We have been talking about this internally and trying to develop some initial thoughts on our responses.

Commissioner McGrath noted the following: The one thing I would note is the quality of the comments in terms of specificity was very good. There was recognition and a broad scope of understanding that we have unnecessarily limited ourselves for what we do in the long-term. The specific comments were all quite helpful. We don't always get that level of comments.

Chair Nelson commented: The comments were extremely helpful. Middle Harbor sounds like that is the place where there are the starkest questions. There are a number of other concerns that came up in multiple places.

Ms. Hall continued: I have about 11 substance slides here. I would suggest that we spend a little more time on the Middle Harbor discussion.

Chair Nelson added: We received a lot of wordsmithing comments so we need to stay at a high level today to make it through this list of issues.

Ms. Hall continued: The two most general themes that were received was concern that the new language would increase regulatory burdens on restoration projects. Staff has discussed this and so far we do plan to modify some language to address this concern. In general we don't anticipate that these are really going to add that much regulatory burden.

Ms. Fiala commented: We have organized the comments according to the policy on which they were commenting so we can see the range of the comments for each policy or finding and that is what we are going to be going through today. We will then take what you provide to us today back to our regulatory staff and try to reach our final, staff recommendation which we will present back to you beginning on August 15th. We are aiming to get to a vote in September or October. We would then publish our final, staff recommendation as well as a response to comments. In many instances we will not take the edit, but we will be trying to explain our rationale as staff for why we have written the policy the way we have written it.

Commissioner McGrath chimed in: I remember these comments and they are kind of an exception to the very specific things. What I would like the staff to do is discuss that directly with commenters. If it remains unresolved then bring it back here on the 15th.

Ms. Goeden observed: There were actually three main topics. One is monitoring and there was some concern that additional monitoring would be required. Another one was about good management. And the third was the funding plans. We will be talking about all three of those today.

Ms. Hall added: We are scheduled to talk to the Joint Venture next week.

Commissioner Ziegler chimed in: I want to make this comment with the utmost respect for the staff and BCDC; I think that is more of an issue than you are saying. I don't think it is one that you can't address. It is in part a tonal issue. It is also figuring out these different, overlapping requirements like Brenda just said. Our comments definitely tried to address this. We tried to provide specific changes to that. If somebody was saying that to us as the EPA we would have a hard time responding to it well. I would invite you to take it in and there is a lot to be gained to win over that crowd.

Chair Nelson replied: When I read the summary, it is not clear to me when I think about the Salt Ponds projects they are doing monitoring. They are doing adaptive management. I am not sure that for the big projects this is going to be a significant change. There were a number of comments about smaller projects and that is a place where we need to think carefully. Do we need to do all of these things? Is there some threshold at which we need to think carefully?

Ms. Hall replied: This is in the policies about the scaling with the purpose of the project and the size et cetera.

Ms. Malinowski commented: That was one of our official comments and it was something that we had discussed. We discussed pilot projects and the need for adaptation, and this is something that we are looking to gear up statewide to make sure we restore everything by 2030. We are concerned about the possible burdens on pilot projects. We definitely need to have enough monitoring and different people care about different things in what they think a project should deliver. If the cost of these requirements are too much to let the project happen, especially for smaller projects, then this is a concern.

Ms. Hall continued: There were some folks who thought that not only did the current language increase regulatory burdens too much but that we could go even further to do so and that we weren't going far enough to decrease that regulatory burden. Things like permit fees, developing a region-wide permit, allowing dredged sediment to dry out—these were some thoughts about how we could be opening it up even further. Staff has concluded that a lot of those topics are not actually topics that would be addressed through Bay Plan changes. Those would be addressed through regulatory changes or other developments outside of the Bay Plan. We definitely noted these comments and we thought this isn't the place to address those concerns.

Mr. Goldbeck noted: And potential changes can be in Next Steps and not through the Bay Plan Amendment process. And we do have permit fees right now in front of the Commission.

Ms. Hall stated: We also received comments encouraging further policy changes regarding beneficial reuse. We do have another Bay Plan Amendment focusing on beneficial

reuse coming up. We addressed Dredging Policy 11b just because it had that “minor amount” of dredged sediment term. We did extract that one segment of beneficial reuse. In general, we were trying to assess the bulk of these concerns in the beneficial reuse Bay Plan Amendment which is why didn’t really dive into many of those issues.

Commissioner Showalter commented: I agree with you except on the third one. I don’t think recognizing the value of fill and protecting development and infrastructure projects is really outside of this. It is coupled with the ability to go forward with restoration projects. It is relevant if you have that coupling.

Chair Nelson noted: And this is challenging for us when we are trying to divide this into manageable bites and multi-benefit projects where it is hard to draw a bright line between flood management and restoration purposes. We want to make sure that in drawing those lines in order to make this a manageable process we don’t lose some of the value of those multi-benefit projects.

Commissioner Showalter stated: And there is a temporal issue too. We are doing this one now and this has been an issue for years and it will be an issue going forward. People would like to get it officially in the record that there is a connection and we can see it positively and not wait another two years for it.

Ms. Goeden chimed in: We do allow it now. We have policies now that allow us to do that shoreline protection as part of restoration of sites to improve protection for communities behind them. That is not something that we have had an issue permitting. We are able to do it now but if we were doing it specifically to do shoreline protection for an urban area and not a habitat-restoration project then that would need to be addressed.

Chair Nelson reiterated: But that is one of the challenges of a multi-benefit project. It is not always easy to draw a line. So one way to deal with this would be to look at our findings and think about whether in our discussion of restoration projects it makes sense for us to acknowledge that multi-benefit projects provide broader values that are important. It is not expanding the scope of our policies, but the findings could acknowledge the value of multi-benefit projects.

Commissioner McGrath agreed: I support that approach. The way we get funding is multi-benefit projects. There has to be a legitimate, public benefit in terms of restoration. By taking out the “minor” I think we have done that. I don’t think we need to fix the rest and Brenda has basically said that. Adjusting the tone to recognize that multi-benefit projects can have multiple values is a good approach.

Commissioner McGrath stated: I was underwhelmed by Anne’s comment on public access. There is a combination of design responsibility and permitting responsibility here. I don’t think it is a good idea to have public access near sensitive nesting areas. When you design a restoration project you have a responsibility not to put sensitive areas where the public is going to clamor for access or where the public is going to go no matter what you do. On the Salt Ponds it was such a huge landscape that you could design sensitive areas hundreds of feet away from access points. There wasn’t anything specific in Anne’s letter that convinces

me. While I am sensitive to her issue and sympathetic - show me maps. Show me where there is a problem.

Chair Nelson chimed in: And my initial response to that was by saying – no way. We’ve got so much restoration of land around the Bay, north and south – that if we were to exempt those projects from public-access requirements, it would be a huge problem with access.

Commissioner McGrath continued: And so to be a significant improvement it may not be perfect. But we’ve got more than one constituency here.

Commissioner Galacatos commented: I will give you an example of the Breuner Marsh Tidal Wetlands Restoration Project. It is a good example of where we found ourselves, all the permitting agencies, in exactly that position where it is not a huge restoration project. It did need to have a public-access component but because of where they wanted to put it to avoid having proximity to sensitive areas it actually meant they ended up having a greater impact to wetlands. You are right that on some of these larger projects that is not an issue but when you get to the smaller-sized projects or medium-sized it is an issue. I would like to at least keep it there so that we have some recognition that the other permitting agencies are grappling with having to deal with having increased impacts to accommodate public access that is not close to the sensitive areas.

Mr. Goldbeck chimed in: I would remind everybody that we considered public access in the context of fill for habitat at the beginning of our process and decided that it was a big item and that we needed to look at public access generally, because public access is right on the front lines in terms of rising sea level. We need to address it. We thought that we should address the public-access aspect holistically. It isn’t that we are just not going to do these things—we are going to have a separate Bay Plan Amendment that looks at it in a deeper dive.

Chair Nelson added: And having advocated for that delay I should not, at this point, change my mind. (Laughter)

Ms. Hall continued: So now we are moving into the comments on some of the specific policy topics and themes. I did put Dredging Policy 11b and the new Bay Plan Amendment, the Map Policy change, first because I do think this could potentially warrant the most discussion for now. It would be interesting to hear if thoughts on this issue have changed within this group in light of the comments at the public hearing because initially we heard strong sentiment that we really wanted to remove Dredging Policy 11b and potentially add this Plan Map Policy as well. But at the public hearing we heard from a couple of Commissioners, Commissioner Gioia and Chair Wasserman, that they really wanted to see something along these lines stay in the main Bay Plan not the Plan Maps.

Considering those thoughts these are the policy options that we have been working with. One option would be to just remove Dredging Policy 11b. Another option would be to remove Dredging Policy 11b and add a policy to Plan Map 4 so you do retain some of that support.

Another one would be amending Dredging Policy 11b to exclude tidal marshes. So any habitat project would still have to wait until the successful completion of Middle Harbor except for tidal marshes.

Another would be amending Dredging Policy 11b to exclude any project that is not similar to Middle Harbor or amending Dredging Policy 11b in one of those ways and adding a policy.

So that would kind of give us a double statement of – let's get this project completed.

Chair Nelson asked: Did anyone object to the Map addition?

Mr. Goldbeck answered: No.

Chair Nelson continued: Then the question was whether it is enough.

Ms. Hall stated: The Corps objected to the Map change. (Laughter) They very strongly objected. (Continued laughter)

Commissioner Ziegler qualified the statement: Not this Corps, another Corps.

Ms. Hall replied: Oh yes, the other side.

Ms. Fiala stated: It is important to note that the language we put in the Staff Report for the Bay Plan Amendment 1-17 was a preview of the analysis that we will be doing for Bay Plan Amendment 3-19. So, with the caveat that this is subject to staff analysis and Commission approval but that proposed, policy language that the Corps was objecting to did include the notion of mitigating for temporal loss because it has taken so long to plant the eel grass. And that aspect of it may or may not have been what they were reacting to and disappointed with.

Mr. Goldbeck chimed in: How staff read their comment letter was they thought that the Plan Map Policy would change the existing authorization – the consistency determination that we have issued—which as a matter of law, is not correct. The original consistency determination would still stand. It was done on the policies at that time and this doesn't change it. It would only change that to the extent that they came back in for an amendment to the consistency determination which may happen.

Commissioner Ziegler commented: The issue here was we wanted to remove obstacles to be able to move ahead with extensive fill requirements to meet some pretty ambitious goals.

Ms. Hall qualified: Specifically involving dredged sediment.

Commissioner Ziegler continued: Yes, yes. So that was the thing on removing this. At the same time, we didn't want to do anything that changed the requirement and kept the pressure on. I was thinking that, as long as you get that out of there so it doesn't impinge on being able to do the fill that is needed – great; and that you are maintaining the same type of pressure or requirement. And that is where the Chair felt like even if it didn't change it legally it was the perception of it.

Chair Nelson had a suggestion: Let's try to break this in half. Question number one is do we want to have a Map Policy, which I understand is subject to a separate notice. And we want to listen to the Corps' construction side in that our direction to you should be to go back

and look at our consistency notice and make sure there is nothing in here that conflicts with that – that represents another bite of the apple. I don't think it does. We are simply saying – hey guys, you've been a little slow in delivering your benefits, get on that. It is appropriate to do that in the Map Policies as opposed to a Bay Plan Policy. So from my perspective I would like to see this, but I do want to make sure that we double-check to make sure there is nothing here that is a second bite of the apple.

Mr. Goldbeck announced: And we will be meeting with them.

Chair Nelson stated: So, let's separate that from 11b. What do folks think about that?

Commissioner Ziegler asked: What did you mean when you said you'd like to see this.

Chair Nelson replied: See the Draft Plan Map Policy included in the Map.

Commissioner Ziegler interjected: And this taken out?

Chair Nelson answered: Yes. And the Corps objected and we should ask our staff to double-check to make sure that this isn't drafted in some way that does represent a second bite of the apple.

Commissioner Showalter chimed in: But just to clarify – what I heard and what I feel is that we don't want the completion of Middle Harbor to preclude other things from going forward. That is what we are concerned about.

Chair Nelson stated: And I am just saying let's see if we can separate those two things. I agree with you. Mechanically I am just trying to figure out how we get through this two-part discussion. I'd say we can do the Map Plan and that is pretty easy as long as we respect the Corps' complaint – we don't have to agree with it.

Ms. Goeden chimed in: So, the Map Policy right now says complete Middle Harbor and provide the benefits that we would have had given the temporal losses of the project or something along those lines. It does not change the existing consistency determination.

Ms. Hall interjected: I was just going to note that what I have up here on the screen is not that version. It removes the temporal loss aspect.

Ms. Goeden stated: So you are planning on doing that now.

Mr. Goldbeck replied: We are considering it.

Ms. Hall added: Based on our discussion on Monday it seemed like everyone was leaning in that direction. But that is not to say that we couldn't go back to what we were thinking previously.

Chair Nelson noted: That is not a change to our consistency determination. If somebody doesn't deliver benefits, we can go back to them at any point as an enforcement issue and say – you've got to deal with the fact that you've got temporal losses that are not consistent with your permit.

Ms. Goeden continued: And so, we would just leave that in the enforcement/remedial action role?

Mr. Goldbeck explained: We are going to have a meeting with the Corps about this and we should go in there with an open mind and not have pre-decided.

Ms. Goeden continued: I just want to be clear on that because we probably read the last version. I want to be clear that we are okay with leaving that second portion out of the policy.

Commissioner Ziegler asked: Did you talk to the Chair about how to respond?

Ms. Fiala answered: No but that is a good idea.

Mr. Goldbeck was more definitive: We will definitely be talking to the Chair, but he was more focused on 11b as opposed to this policy.

Commissioner Showalter chimed in: I think in our discussion with the Chair, we need to take this in context with the fact that we've been cited seriously in a state audit saying that we are not doing adequate enforcement. This is like a poster child. From a political point-of-view we just may have to have it in here. I say – staff go forward and figure it out. Figure out what is best for the agency and what works well.

Chair Nelson added: Fair point. We don't want to drill too far down into the weeds in a policy, but I don't see anything inappropriate about talking about temporal losses. We are at the point where we've experienced temporal losses given the permit; I don't think there is anything wrong with addressing that issue in this policy given where we are in that process. I wouldn't object to it and if staff has a different recommendation –

Ms. Hall interjected: I will note that our legal team does keep reminding us that policies should not be enforcement tools.

Ms. Fiala added: The concern that was expressed is that simply adding that policy to the Map is only effective if and when an action is taken. If and when the Corps comes in to amend their consistency determination, then Brenda could look to the Map Policy and ask for consistency or require consistency between the Map Policy and the proposal. Right now, it is only a passive tool and it only comes into effect when there is a development proposed and the development has already been permitted. Until the permit changes the Bay Plan would not be an effective enforcement tool.

Mr. Goldbeck agreed: You are correct in that, but it also would be when there is a lot of discussion at the Commission meeting on both sides. One is what are the functional impacts of these potential changes and what are the political impacts of these potential changes? From where I sit 11b prevents other things from happening until Middle Harbor is a success, but it doesn't say – Corps. You need to get this job done, which the policy note would do. And if that policy note is in there, it isn't an enforcement tool per se but it is something that the Commission has taken a position on and staff can go into discussions with the Corps and others and say, hey the policies call for this project to be done. So, it would have other uses than the straight-out enforcement aspect.

Chair Nelson noted: I don't think that is any different from what is up there right now. That has exactly the same enforcement implications as adding that sentence and to address

temporal losses. In terms of raising those enforcement issues, there is nothing different between the language up there and adding that additional phrase. I haven't read our enforcement regs in a very long time, but I don't remember if they talk explicitly about temporal losses.

Mr. Goldbeck replied: No. That would come out of interpretation of the policies.

Chair Nelson stated: I would say at the moment my sense is to put it in.

Ms. Fiala chimed in: it would also go back to what is in the consistency determination around the monitoring plan and the expectations. That is where the enforcement would come. Whatever the Corps agreed to provide on whatever timeframe would be the enforcement tool essentially if they didn't complete what they said they would do.

Ms. Goeden stated: All of that is true and we have already asked for remedial action they have already disagreed.

Chair Nelson continued: The input I saw here suggested that everyone agrees with what is our fundamental position which is that we should not allow Middle Harbor to remain an obstacle to a broad range of restoration projects and applying fill. And that says to me if we want to leave some version of 11b in here, which I don't object to, it should be crafted as narrowly as possible.

It seems the way to do that would be your fourth bullet – exclude projects not similar to Middle Harbor. If somebody comes in with a project that looks a whole lot like Middle Harbor then Middle Harbor for them becomes a real issue, a real problem. And that is a completely legitimate item and it is the Bay Farm Borrow Pit. If somebody walks in with a very similar project it is completely legitimate for us to say –hang on, we haven't made this big project work yet.

That bullet seems to me to make perfect sense. That way we are not interfering with oyster reefs and marsh replenishment and the long list of pilot projects that people are thinking about. We would just be talking about projects very similar to the Middle Harbor Project.

Commissioner McGrath chimed in: That is the right approach. And on this I can talk. (Laughter) The reason that I want to make the changes are exemplified by the mouth of Sonoma Creek where we have accreted wetlands due to Gold Rush debris and the long jetty at the mouth of the Napa River. If all of those wetlands were creating a tidal prism that fed into Sonoma Creek it would benefit for control and it would benefit circulation. But as now they have their individual sloughs and they are not connected. And parts of this prohibited a more comprehensive look at how you do that. To me, if we are going to create resiliency, we have to be able to try recognizing that all restoration projects are still at least a little bit experimental; but we have to try things that are bolder.

And so the minimal fill prevented that kind of effort. That doesn't mean that U.S. Fish and Wildlife Service had the right answer. It doesn't mean that these things are not really complicated hydraulically. I don't want to be not allowed to think through things like that which will be – I mean that is an important stream and we have a supervisor who is a

Commissioner who wants to improve habitat and improve flood control – I don't want to be in handcuffs. Whatever we do has to solve that problem.

Ms. Malinowski commented: Our recommendation was to remove the policy completely. But we were concerned that leaving it in even excluding projects like Middle Harbor might still preclude several restoration projects from happening.

Ms. Hall asked: Do you have some examples? Because people keep asking, what is an example?

Ms. Malinowski answered: I know that Marilyn Latta at our office feels very strongly about this and she is our sub-tidal expert. I know that our staff felt really strongly about completely taking out the policy altogether. Waiting on one project or any others leaves us worried about how long that would take. It took the Army Corps a really long time. The temporal aspect of this waiting was wearing thin for folks, but I can get some specific examples from Marilyn.

Chair Nelson stated: Those would be hugely helpful to think through whether this is a drafting issue or whether it is a really more fundamental issue. It seems to me that there is – I have been advocating removing all of 11b entirely but the flip side of that is if we allow a pilot project and the idea is we are going to prove that this project works before we build more of those – what do you do if the pilot project doesn't get completed?

It seems to me given the scale of this pilot project this is a really big pilot project. Given that approach when you build a really big pilot project and say, we are going to demonstrate that this approach works and it isn't finished and we are not delivering all of your values – it is completely appropriate to say; okay, in the case of projects that are very similar to that pilot project we have to deal with that action. It seems to me there are two ways to deal with it. One way is what we are talking about here – an amended 11b. The other way to deal with that is by saying, we are going to remove 11b, but we are going to do something that establishes additional requirements for very similar projects. But I am not sure how you do that without 11b or maybe it's drafting 11b in some other way. It does seem that what we have here is a really big pilot project that isn't working yet.

It is completely fair to say that just removing 11b is the wrong solution. There is probably more than one way to craft it. One way to craft it is simply saying blanket prohibitions except for projects that look very much like Middle Harbor. Maybe there is another way to craft that by saying, because of the experiences with Middle Harbor very similar projects would be subject to some other set of requirements.

Ms. Goeden remarked: I will just throw out there, not that I am agreeing or disagreeing with the statement, but I've had lots of conversations with David Lewis around this particular issue. And his latest thoughts on it he would refer to bullet number three which is to exclude tidal marshes. And his rationale for that is that we have a tremendous need for sediment in tidal marshes now and in the future and we technically know how to use that sediment and we should focus our efforts there. I am not agreeing or disagreeing I am just providing information so that when he comes back with that you have heard it.

Chair Nelson chimed in: I have heard that and I have a somewhat different perspective which is if somebody were to walk in with a Bay-farm pilot project they are basically saying, we are going to gobble up all the Bay sediment for a long time – a major draw project that is pretty uncertain given that Middle Harbor hasn't delivered what we expected. That I have a real problem with. But I don't know that there is not some other pilot project that folks want to try that would involve more than a minor amount of fill but a whole lot less than a project that would really change the whole dynamic of how we reuse sediment in the area. I am sympathetic to that and I don't think we want to allow really large-scale projects like Middle Harbor until it works. I suspect there are other examples of projects that we've used dredged sediment and Sonoma Creek is a good example.

Mr. Goldbeck stated: Shallow sub-tidal as opposed to deep sub-tidal.

Chair Nelson offered an example: If someone were to come in for some sort of barrier island – a shallow berm of some sort. We couldn't approve that right now.

Mr. Goldbeck stated: If it's not a minor amount.

Chair Nelson repeated the statement: If it's not a minor amount of fill. I agree with David's goal which is to make sure that we don't allow an uncertain project that would gobble up all the sediment. But I think we can still deal with that with a pretty narrowly crafted 11b.

Ms. Hall continued: Moving on to the topic of incremental fill. There are a finding and a policy on this topic, but I put just the policy up talking about incremental fill placement to reduce temporal loss. There was concern raised about this policy that this could potentially require those that need to adapt to sea level rise to use fill and potentially encourage more pie-in-the-sky projects or bad actors in some capacity. That was raised at the last Working Group meeting as well as by a couple of commenters. In response to that staff felt we could tune up certain parts of this policy in terms of how we could change the tone of it a little bit. We could clarify that not all projects have to use fill to adapt to sea level rise, but rather when they are proposing to do so that they should first be considering an incremental approach to avoid temporal loss and make it more explicit that it is a temporal loss due to large amounts of fill for adaptation that we are concerned about, and that this could result from large-scale, sea-level-rise, adaptation measures. This policy is actually trying to mediate that rather than encourage that kind of large-scale loss. And finally, we recognize that the time horizon here can be very subjective, by saying "prior to the onset of future conditions" – that this can be very subjective and that maybe clarify that this would be based on the best-available science.

Chair Nelson chimed in: There are multiple factors here like what is happening with sediment dynamics in the Estuary and what is happening with sea level rise. So, in some places future conditions are with us today. And in some places those problems may not arise.

Commissioner McGrath opined: I agree we need to re-wordsmith this. I agree with the thrust of some of the comments that you are actually increasing temporal impacts by the blunt language here that your system starts to recover then you put more fill in and the like. I also agree that you need to put in place the best scientific approach. Here is the thing that I am in a quandary about. I have begun to have discussions about this approach. I will use the example of the East Shore between Richmond and the Bay Bridge Toll Plaza where all the creeks are very

small and they don't have enough motive force on the Creek itself even in its natural condition to keep an open inlet.

The idea of wetlands out in front of them, or sea level rise for that matter, either one; are going to increase level hazards because you're trying to push water a little bit more uphill against the Bay.

I don't know the best way to figure out can you develop a scale of wetland that will actually create enough tidal prism to help and improve resiliency without increasing upland flooding. And if so the best way to do it might be to mimic natural sedimentation processes which were generally a big flood, material that is mixed in sediment size that then gets reworked because the reworking builds the best channels. I think we have to be careful here to not prescribe a specific way of doing it which we don't know. And I am trying to give you just enough of the dilemma here.

Commissioner Ziegler asked: So would that happen if you just changed "should" to "may"? And leave it to what the project purpose is, the project design, the project need, and then this would allow that but not require it or not necessarily encourage it. You need them to choose the right management approach for that site.

Chair Nelson continued: This puts a thumb on the scale. It says we are going to require this unless the Commission finds that. And I could easily imagine that there are places where a single, large placement of fill is the right approach and other places where repeated applications are the right approach. There probably are places where those are clearly both true. And it is perfectly fair to say we shouldn't put our thumb on the scale and make it harder for one of those to get the right solution.

Commissioner Showalter stated: I almost think we should delete this. When I read this, I questioned the science behind it. Granted I'm an engineer but I have worked in restoration science for about 20 years. And this concept that you really create more of an environmental problem or equilibration problem by one, single, big amount of fill than you do by repeated application – I have never seen any scientific evidence to that fact. So that was a new theory to me. I can see situations where that would definitely not be true and situations where it would be true. But to me I don't think this belongs in the policy at all. It should be done on a case-by-case basis and in the design and we shouldn't be putting our thumb on the scale here. Is there scientific evidence that says that repeated inundation of habitats with sediment in smaller increments is better?

Chair Nelson added: In all settings.

Ms. Goeden explained: This is not generally aimed at a project that is taking a subsided tidal area and saying we have to place it incrementally. It is more looking at existing marshes or existing, seasonal wetlands that need to adapt to sea level rise and placement of fill particularly for transitional habitat to be placed. And if you did that in a large amount in one point in time not knowing what the elevation of sea level will be or when it is coming it is very difficult to understand how much and how high you should build the sediment for the future. And generally what you might be creating and what we are trying to avoid somewhat is the situation where we have taken a tidal marsh or other habitat to create an upland for some future

condition that becomes a weed patch or a pathway for vectors or other predators or other things to come in where we really just trying to provide some elevation.

Commissioner McGrath stated: But we agree with that Brenda. But this does much more than that.

Commissioner Showalter stated: I don't think this does that. To me I don't see the intersection of your explanation in that language.

Commissioner Nelson was in agreement: I totally agree with that and Sonoma Creek is a good example of that. If we adopt these policies and Sonoma Creek comes back and says, we want to do this. It seems to me what this language would say is that we put our thumb on the scale and what we believe the Fish and Wildlife Service should do is to not do that larger fill they proposed for adaptation purposes over time but instead they should plan a phased approach that provides for multiple fill episodes over time. I felt at the time that we were excessively constraining, and we should have been able to allow for a larger amount of fill. And it seems to me that there might be places where that single placement of fill is the right approach. There might be other places where it is not.

Ms. Goeden replied: That is what we were trying to get at with the repeated fill. We felt that maybe we need to stop –

Commissioner McGrath interjected: But this doesn't do it. So I will tell you what the science told me. The first big, restoration project was Muzzi Marsh. And Muzzi Marsh didn't circulate well because it was over-filled. They went in and dug a channel that was about twice the dimension of what they knew the tidal prism would generate. And that became the nicest part of it. Now that was in a sediment surplus. So we knew that the sediment was going to fill it back in.

That was then applied to Sonoma Baylands and was pretty successful because you are at the mouth of the Petaluma River. You've got mud off of the flats. You've got the Petaluma River. You do the bulk fill and then let you let the gentle marsh contours be sculpted by the tide which is still the best idea.

Now if you look at something like Cullinan, I don't want to necessarily say we have to put fill in Cullinan in small chunks or large chunks. I want to let how it works. So if the best thing to do in Cullinan considering feasibility is to pump some dredging material into a corner where we know the tides will redistribute it and give us the fine-grained marsh that we want – go for it even if there is a temporal loss.

This as Barry said puts a thumb on the scale. I want to make sure that we have the science drive and the feasibility drive with what the Cullinan result is.

Chair Nelson added: And just to be clear that works with Cullinan once Cullinan is restored to tidal action because along with bind dikes this is not an issue.

Mr. Goldbeck interjected: So what you are basically saying is do it based upon what is best in looking at the different ways to do it which makes sense. I think we can address that.

Some applicants will say yes but it is just too expensive, so we don't want to do it. And the question is in that case how do we respond?

Commissioner McGrath stated: Well that is a feasibility issue.

Mr. Goldbeck continued: It is cheaper to come in and do it once than to come back.

Commissioner McGrath agreed: Right. Well that is the feasibility question. If the choice is to have a less-than-optimum net benefit to habitat because you can afford to do it, or not be able to do the project and have habitat that is inferior, then the balance is can you live with the temporal impacts to actually have a feasible project?

Commissioner Showalter echoed the sentiments: I think you are right. You start with the science and then you go through the feasibility. I think that is exactly the culture that we need to be applying.

Mr. Goldbeck stated: It sounds good.

Ms. Hall asked: If we are trying to not place our thumb on the scale, is this policy beneficial at all? I think it would already be determined by an analyst on a case-by-case basis as to what is the best available science.

Chair Nelson chimed in: So do we need it at all?

Commissioner McGrath also chimed in: So take it out.

Commissioner Showalter quickly followed: I think we should take it out.

Commissioner McGrath immediately replied: I think Pat's comments pretty good – and put in findings that indicate we want the science to drive it.

Chair Nelson added: You need regulatory guidance.

Mr. Goldbeck chimed in: If you want, I mean the regulatory folks can speak, but if we want this to be considered we need to have some policies that say – you need to consider what is the best way to construct this site and keep the habitat value otherwise they are going to be saying you should do this. And they will say, well we didn't do that and I don't see anywhere in the policies that say we have to.

Commissioner Ziegler observed: That already seems to be in there that consideration Steve. I mean there is a lot in there already about –

Mr. Goldbeck interjected: Well I don't know to address this. We can go back and look.

Ms. Malinowski commented: We funded a small piece of the Sonoma Creek Project. There are two very different projects that we are talking about here. I would encourage you if it would make it easier to do these experiments to put some sort of language in here. But making it on a case-by-case basis is really important. I remember with Sonoma Creek what happened is they didn't necessarily know how much the mud was going to shrink. And we did that with six acres of transition zone instead of ten. And as a funder that was a huge bummer. We actually had to go back to our Board and change the grant agreement and it was a huge rigmarole. So that became a big chunk of sediment. And then we funded and led the Seal

Beach on the South Coast where we did spray incremental amounts of sediment in the pilot project. It was very new in New Orleans and we wouldn't know until we did that project here. If we could encourage these innovative approaches in a way that doesn't prescribe doing either incremental or big chunks of sediment unless based on the best available science. Our one concern with this is that it would increase permitting and this is a good example of how we thought some of the changes might increase regulatory burden if you did propose an incremental sediment placement approach we would prefer one permit for that whole project instead of a permit every time for each increment.

Chair Nelson stated: But this could still do that.

Mr. Goldbeck added: You could get it phased.

Ms. Malinowski continued: So maybe if there is a rework of the policy you could write something in there like that. And if it was one approach with multiple increments that could be done under one permit that would be helpful.

Commissioner McGrath stated: So, we need a rewrite.

Ms. Goeden responded: I would like to answer a little bit to what you said. We have talked to the regulatory unit and we do believe we could generally authorize this with one permit with incremental volumes coming onboard under a total volume to be dealt with at the plan review and the check-in. So we do think we could do it that way. And the other thing is that I just want to provide a converse. So Kelly brought up a really interesting thing with Sonoma Creek. Staff told Fish and Wildlife Service that the sediment would shrink. There is a whole other question about major and minor amount of fill but dredged sediment is known to shrink when it dries – that is what happens. And we know that and, yes, Fish and Wildlife was well aware of it but unfortunately didn't consider it in their design.

Ms. Malinowski replied: I see.

Commissioner McGrath noted: It blows up and then it shrinks.

Ms. Goeden continued: We have the opportunity where staff can provide input on what is best available or best possible for a project design where we have some experience having looked at a wide variety of projects.

Ms. Malinowski stated: That would be awesome.

Chair Nelson stated: You just laid out a really nice summary of what we want to make sure we capture here. So the answer is yes we want to make sure it is in here. No we don't want to put our thumb on the scale. And it is fair to say as Sam pointed out – look elsewhere to make sure we haven't already captured these concepts somewhere else. But assuming we haven't already dealt with it elsewhere you think you have enough to redo this?

Ms. Hall replied: I think so. Our next policy is about type conversions. There were concerns raised about multiple parts of this policy by commenters. Within the Working Group, concern was raised specifically about Part c of this policy. From regulatory staff discussions we had more-or-less been thinking that Part c could be removed. We could take out the balance aspect and instead focus on requiring that the project maximizes habitat benefits on the

appropriate scale. There are other aspects of this policy that we would probably want to do some minor language tweaks. In general, we thought that if we took out Part c, we could still have the sentiment there and it could be used by the regulatory staff to make these tough type conversion decisions which would be on a case-by-case basis.

Commissioner Showalter stated: I think that this recommended change is an improvement.

Commissioner Ziegler chimed in: I agree.

Commissioner McGrath replied: I am okay with it.

Commissioner Galacatos asked: Can I think about it some more? There is a large focus right now with ATA, the Corps. and the Water Board looking on type-conversion. When you say, “maximizing habitat benefits on an appropriate scale”, the question that will be asked is – maximizing which habitats? And we still haven’t had any clarity on that.

Ms. Hall noted: That is always the issue. It seems for now that would have to be – there is no clear answer and it would have to be decided depending on the project.

Chair Nelson added: And the habitat goals of the project help us with that issue. But I could easily imagine, for example, the Salt Pond projects are going to change the balance of species within an embayment. They have been wrestling with that of what do you do with the species. Some of them are very abundant species that have thrived in those salt ponds. When you restore some of those salt ponds, we may well be changing the balance of species on a regional scale within an embayment. And we may decide with some of the salt pond projects that is an appropriate thing to do.

Ms. Goeden chimed in: Barry I am not sure that is quite right.

Chair Nelson asked: You think we fully protected all of those?

Ms. Goeden answered: No, I think what the South Bay Salt Ponds is trying to do is adaptively manage the project so they don’t lose species. Their whole thing is we want to go 50/50, we want to go 10/90 – 90 percent tidal marsh and 10 percent managed wetlands. And what they are doing is they are monitoring the species composition and diversity as they are doing it every five years and making decisions on their next phase based on the composition of the species and what they have been losing or not. That was my understanding of the way they were choosing whether they went from 50/50 to 90/10.

Chair Nelson responded: But I still don’t understand because it seems to me it is still altering the balance of species and habitats.

Commissioner McGrath chimed in: Barry is right. The intention was to not lose, let’s just take Western Gulls for an example, but to increase other numbers without reducing. So it was to increase the overall carrying capacity of the system. But there were preferential choices made in that increase. If you look around the Bay there are 250,000 acres of rafting ducks and dabbling ducks habitat, the most plentiful habitat. There is 100,000 acres of wetland restoration as a goal. If you are working around the margin and you are looking at some loss or some transition of some of that rafting duck habitat in order to make circulation into your

marshes work better I am going to make those choices. It is godlike and I understand the responsibility of it but there are some policy reasons and some public-benefit reasons for doing this.

Chair Nelson added: I recognize that this doesn't apply to the Salt Ponds Project right now because they are behind dikes.

Mr. Goldbeck chimed in: Jim you were talking about work on the margins but this says significantly alter the balance on a regional scale.

Chair Nelson added: Within an embayment.

Commissioner Galacatos stated: This is appropriate scale.

Chair Nelson continued: Or on a regional scale but it seems to me –

Mr. Goldbeck interjected: I'm not arguing one way or the other I'm just trying to point out what this does and doesn't do.

Ms. Goeden chimed in: Part of the reasons we crafted it this way is because the way species and habitat changes in the region, regardless of human alterations, because fish and birds have to move around based on temperature, salinity and food source. Regionally if you eliminate a significant amount of habitat and eliminate their ability to move from one region to another based on any of those three factors then you are causing a problem for that population. And it is difficult to pay attention to this issue, especially if we are not paying attention to that and we have species that breed in other parts of the country or world—we can submit that something caused harm to the population of various species. That is why I have pushed pretty hard to look at the balance of species and habitat regionally because we need to support the population that we have because we are the largest estuary on the West Coast of the United States and this is one of the only stopping grounds for birds in the Pacific Flyway. If we just say well we don't need one of these habitats anymore and we significantly alter it, we can be causing some very difficult situations for a number of populations.

Chair Nelson offered a hypothetical: I agree with that but let me give an example here about Part c. Let's assume that there is an embayment somewhere that is going to lose the vast majority of its tidal marshes because of sea level rise but it has not lost it yet. And someone comes in and says, we think we should take some mud flat and convert it to tidal marsh using a significant amount of dredged material.

And our goal in doing that project, and let's just assume for a moment we agree that the tidal marshes are going to vanish and we need to be proactive and not wait for those marshes to be gone, but this says to me if we are going to alter the balance of habitats in that embayment, and that would be the goal of that project to alter the balance of habitats in the short term, we couldn't do that.

Ms. Goeden had a clarification: I want to clarify one thing that we struggled with at the staff level. We weren't talking about embayments we were talking about the four or five major embayments of the Bay not the individual ones like San Rafael Bay. Just to be clear we were

talking about the larger-scale things and maybe we need to clarify that because BCDC staff had the same problem. They were thinking we were talking about the little ones.

Chair Nelson stated: I was thinking about the small ones too.

Ms. Goeden asked: The other thing is that if we are moving wetlands into tidal-flat areas aren't we moving things the wrong way given that sea level is increasing? Wouldn't we want it to go the other way?

Chair Nelson answered: Yes, and there are places where we are not going to do that. We are not going to have the ability to do that.

Commissioner McGrath added: We don't have the sediment to do it.

Ms. Goeden noted: I suspect that is true and so it is an interesting problem.

Commissioner McGrath continued: Brenda I agree with your rationale. But this doesn't say that. If the language was to maintain the viability of the Bay as a stopping point on the Western Flyway – if you look at duck habitat where we have a fair amount of detail you got about 250,000 ducks plus or minus 50,000 and –

Ms. Goeden interjected: And they are in decline.

Commissioner McGrath echoed the statement: - and they are in decline and most of the research suggests they are in decline because of nesting-habitat losses in the Arctic. But our knowledge of that has some fuzzy edges to it for sure. And the bird habitat that exists in the Bay is a combination of the open water. It is channels. The density of ducks and channels and wetlands is actually greater and that generates the food. This is constraining in an overly specific way rather than trying to talk about the function that we are trying to protect. If we want to talk about the essential habitat of the migratory species, I am completely onboard with that. And we can be a little more specific to define it as resting areas, loafing areas, food sources; I mean we have to be careful before we play God.

Ms. Goeden added: So wise. (Laughter)

Mr. Goldbeck reiterated: And we are going to be playing God.

Chair Nelson chimed in: I have one additional thought here and that is that this clarification about embayments meaning the big embayments is helpful. Lots of people are going to misread that the way I misread that sentence. That is something we need to fix. And second, I am not sure we need that because from the perspective of sediment availability, I am not sure there is an embayment where we have enough sediment to significantly alter the balance of habitats on a regional scale. We don't have a lot of sediment to do that.

Commissioner McGrath added: Probably not.

Chair Nelson continued: So at a minimum it needs to be rewritten because then the other folks would read it the way I read it which is embayment on a smaller level. But when I think about what it would take in order to significantly alter the balance of habitats in a big embayment, the entire South Bay, and we are talking just about tidal marsh or about tidal areas – we don't have a lot of sediment to do that so I'm not sure that is a big problem if it is on an

appropriate scale. And maybe avoiding impacts to sensitive species is something we need but I'm not sure that this is a real problem.

Commissioner Galacatos chimed in: The other thing that might help is to broaden the perspective of what projects might be causing that type-conversion. So you might have a type-conversion that is not really where you are placing fill but where you might be breaching levees to restore tidal action to brackish marshes. And now I would say that you have a diminishing number of brackish marshes around the Bay that people want to restore to fully tidal.

Now that is something where you may not be needing to have a large amount of fill but you are doing a large-scale conversion and you are now diminishing the amount of brackish marshes that you find on a regional scale because they are diminishing around the Bay. But you have certain species that like the brackish marshes more than the tidal ones. I am clarifying that you can have certain projects that are going to have significant changes that are not going to be requiring this large amount of fill per se.

Chair Nelson interjected: I agree with you there.

Ms. Hall chimed in: Right and so maybe this could apply more broadly than to just fill projects.

Chair Nelson added: Which sounds to me like it might be more applicable in non-fill settings as a broader fish-and-wildlife policy.

Commissioner McGrath chimed in: But the South Bay Salt Ponds will in fact alter the balance of species in the South Bay. It is intended to do so. And it would happen without a restoration project if you couldn't afford to maintain the levees.

Chair Nelson agreed: But we are doing it intentionally and yes this doesn't apply because it is behind dikes but it still seems to me that what this says is that the approach, the philosophy that says the Salt Ponds Project is a good idea say that an analogous project involving Bay fill is a bad idea.

Commissioner Galacatos offered the following: I think what we are trying to say is it needs to be a thoughtful approach and not necessarily always a good thing to go from one to the other.

Commissioner McGrath continued: And I think the South Bay Salt Ponds did that because they intentionally looked at not sacrificing the species that rely on brackish systems and trying to maintain enough habitat so their numbers didn't collapse but benefitted primarily other species.

Ms. Goeden chimed in: So an interesting case for staff is that the good projects are fairly easy to permit. They may be complex but they are easy to permit. It is the converse where we have a project that we don't think should go forward in the way that it is proposed. How do we provide staff with the tools and the policies to limit those or alter them in a way that they become a beneficial project?

Commissioner McGrath noted: Well they are not going to be of the scale.

Ms. Goeden replied: Well we don't know. We are assuming that everyone wants to do the right thing but that is not always true. And then we also assume that everyone always has the best science at hand and that also is not always true. And so one of the things we are trying to do is give the staff some tools to be able to make projects work the way they should.

Chair Nelson offered the following: Let me make a suggestion here. We are about half way through our list of issues and we are about two-thirds of the way through our time. I don't think we are going to come up with a simple solution. On this issue it makes sense for you to chew on it and come back to us in our next meeting with some options.

Mr. Goldbeck stated: And we will do that. What I am hearing is recast this instead of what it is doing here, and focus on more the concept of looking at valuable species and not having a cumulative impact that is unintended or that we don't want. We will go back and see if we can try to crank up some language that does that.

Chair Nelson added: And it might make sense to give us some options around this.

Ms. Hall commented: We even internally have gone back and forth on this specific issue and it is not an easily solvable one.

Commissioner Showalter chimed in: And moving forward can we make sure we do the SFO one because we have somebody from SFO and we never have had before.

Ms. Hall continued: So the next one is pretty quick. This policy did present some challenges because folks were thinking it is adding regulatory burden. We do say, "As appropriate an adaptive-management plan should be included" and we added three more of these assessment criteria. Staff generally thinks that this policy is okay as is because the adaptive-management plan is still not required. This still leaves a lot of flexibility for analysts to assess which of these criteria need to be analyzed and at what level.

These additions could be as simple as checking a box or as complicated as doing a more in-depth analysis depending on the project and what level of information we need to understand if it is going to fit within regional goals et cetera.

Commissioner Ziegler commented: One thing I would say about this one is it is an example of where it goes back to the thing on doing fill incrementally. You have an adaptive-management plan and it is looking at what is necessary over time. I think this is an example of where that is covered and allowed for as appropriate on a site.

Ms. Hall added: I do think adaptive management would be one of the other tools that helps with that issue.

Mr. Buehmann commented: I would like to make a clarification to that. When we are talking about an adaptive-management plan here generally we are talking about when monitoring indicates it is not working out and we want to do a plan to fix it, as opposed to an adaptation plan to sea level rise.

Commissioner Ziegler stated: I think that is a good point. I would like to see what goes into an adaptive management plan too and if it is really intended to be different.

Chair Nelson noted: With a habitat project a long-term, adaptive-management plan is going to be an adaptation one.

Ms. Malinowski commented: We are asking to separate out the requirements and then a sentence that states, if appropriate to the scale and scope of the project. Design and evaluation of the project should not necessarily be required of the project that may require periodic maintenance such as protection and enhancement of small, eroding, tidal marshes in urban areas.

Ms. Hall chimed in: My interpretation was that in some cases the extent to which analysis of these is required would depend on the project and analysts could make –

Mr. Buehmann interjected: I didn't understand the question.

Ms. Goeden added: I didn't understand the comment.

Ms. Hall offered the following: I think it was that the thought that k, l and m the new added requirements shouldn't have to be assessed by all projects especially not smaller projects that are just trying to deal with erosion.

Ms. Malinowski stated: Yes.

Ms. Hall continued: But I had talked to the regulatory staff about this and I got that those criteria don't always have to be thoroughly analyzed to the same degree.

Mr. Buehmann observed: You know this is a sort of modernizing what we already ask for. It is just more explicit about things that are already requirements. For smaller projects it would probably be easy to satisfy.

Commissioner Ziegler asked: So how does that fit? I don't understand how that fits with that this is a monitoring and if the project is not going right that then it is going to adapt and why here then you are saying how those project adhere to regional goals.

Mr. Buehmann explained: So those are different things. This is talking about specific, long-term goals and success criteria and a monitoring-program, adaptation plan. Design and evaluation of a project – so when you come in for that permit application you need to address criteria a through l.

Chair Nelson suggested the following: Let's just sort of run an example.

Commissioner Ziegler noted: Design and evaluation factors for how a project is going to be done seems like that's really important. And then the need for an adaptation plan is also important. Are they separate concepts?

Chair Nelson noted: They are listed separately there.

Commissioner Ziegler continued: Part of it is the plan and then I see what you are saying – design and evaluation of the project.

Mr. Buehmann explained: So that is the standard for reviewing a project. It doesn't necessarily mean –

Ms. Goeden interjected: But this is really interesting about the added language. This is very much what the Baylands Ecosystems Habitat Goals Update said that we needed to make sure that we adhered to regional goals, make sure the project could sustain financially. So that is language that came out of what the region said we needed to do for restoration projects.

Chair Nelson asked a question and offered another hypothetical: Yes and? Let's assume for a moment some small city comes to us and they've got a little, tiny scrap of tidal marsh in their local little estuary along a creek. And they want to come to us with a project just to maintain an existing tiny, quarter-acre tidal marsh. I could absolutely imagine that applicant looking at that list and thinking, oh my God that is a daunting list. Now maybe you can deal with that in the evaluation process and maybe it ain't hard to show that a small project adheres to regional restoration goals and deals with connectivity and so forth. It seems to me that somewhere in here maybe we should have all these things in here but maybe we also need something that will address the tone that says – for small projects –

Ms. Hall interjected: I do think this policy would get at that by saying that the level of design –

Chair Nelson asked: Is that our next policy?

Ms. Hall replied: - yes that is the next one if we want to move on. But I do want to get to the SFO one.

Ms. Malinowski stated: That was our concern. For instance if the city of Oakland were to infringe on a tidal marsh maybe it won't significantly contribute to the regional restoration goals—maybe there is no sediment to use on it—but it is a huge, educational, recreational opportunity. So there is an exception to those types of projects.

Ms. Hall added: I don't know that this necessarily allows scaling for how much it fits into restoration goals which was a concept we had been toying with. We might have concluded that this policy already gets at it. This certainly would say that for smaller projects, the level of design, adaptive management, monitoring would scale for those appropriately—meaning that smaller ones would probably not have to go through as rigorous of a process as a larger and potentially more impactful project.

There really wasn't much concerned raised about the first part of this policy. There was one comment that misinterpreted that we were saying that this would require more monitoring in adaptive management overall which it is not. Where we did get many comments was about the funding plan. Some of that was also trying to clarify what exactly we mean by “plan” and how much extra work does that put on an applicant.

From staffs' perspective we are not saying that an applicant has to come to us with funding, but more that they have to identify some proper sources of funding that they could tap in the future or that are likely sources for them to support monitoring and/or adaptive management that their project would require. We are thinking of changing the language to clarify that. Several of the comments asked us to clarify what we mean by this. We are thinking along the lines of funding strategy and in some way, we want to clarify what we mean by that

and make sure that we are having people come to us showing that they have thought about it up front.

Commissioner McGrath commented: Generally I keep quiet about Middle Harbor issues but I would ask the question here to think through how we approach this and to what degree the issues that BCDC may have with that project has to do with the funding decisions of Congress and what implications we want to draw from that to other projects. There is always the possibility that Congress for whatever agency, the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Soil conservation Service may authorize a project and fund it partially. And that poses certain hazards. Do we want to say we are not going to consider those?

Ms. Goeden replied: No but they should have a plan that says how they are planning on obtaining the funding to complete the project and monitor it and adaptively manage it over time.

Chair Nelson stated: I think we should just recognize that yes I think it is appropriate to clarify that and we should ask applicants if they have funding strategies but for state and federal agencies in particular who really can't commit future appropriations I think we should be pretty modest about what we are going to get from those funding strategies.

Commissioner Galacatos chimed in: I would just add that we have that issue with other entities and applicants as well, permittees would have it for non-profits and from other smaller entities that cannot commit a fund to having all the financial resources. If they want to do the projects but then have shortfalls on that. It is not just – it's more common that you think.

Commissioner McGrath stated: And there is a distinction between something that fills and requires mitigation or something that is an effort to improve.

Mr. Goldbeck chimed in: The way it is now and we can clarify it as well if we need to—we are not requiring that you have all that money committed at the time of the project; it is just that what is your plan to fund this is basically what this is asking for. Because right now we don't have the basis to ask anybody that. So this would clarify that you need to give us some kind of permission on how you are planning to do this and maybe you'll say we're a small non-profit and we are trying the best we can. And we will say yes you have a small project – go for it.

Ms. Hall stated: That shoreline protection policy in general there were several concerns raised.

Commissioner Showalter chimed in: I would also just say that is really hard to read because of the way it is formatted. If you had a, b, c, as a list that was bulleted out I could have read it a lot easier.

Ms. Hall continued: So this is a policy asking for projects to evaluate natural and nature-based features, and we are saying all projects should evaluate and to the greatest extent practicable incorporate those features. We also did add an exemption for airports for incorporating certain natural, nature-based features. Concern has been raised whether we should be requiring all projects to be doing this assessment and evaluation. There are thoughts on both sides. Maybe that is the way we need to proceed if we want to get the whole Bay

working toward natural-based features. But at the same time do we want to require smaller maintenance projects or individual homeowners to be doing that assessment as well?

And the staff recommendation is to leave it as is but provide guidance similar to what is given by the state of Maryland for waiving or exemption from these requirements if it is not feasible. In the case of some of these smaller projects they could pretty easily demonstrate why they should be exempt or why it isn't feasible.

Here we did think that airports should still have to consider certain options for incorporating natural infrastructure. There are certain features, such as marshes, that attract waterfowl and are certainly dangerous and we agree absolutely they should be exempt there. But there are other projects that are still natural and nature-based that don't necessarily attract dangerous wildlife. And in that case, we – like for example a living seawall where you would be providing some natural features for subtidal organisms but not attracting much more in terms of things that could interfere with aircraft. And recognizing that those are prey sources for birds so maybe there would be a little bit of a tradeoff, but we would still be able to assess that and think about approaches that do not significantly increase numbers of hazardous wildlife there. We still want everyone to be thinking creatively about nature-based approaches. If it still is not feasible then it is not feasible.

Mr. Lam commented: My name is Nixon Lam and I am with SFO. We really appreciate that staff has put in this language for us or is considering this language. We feel it is really important to acknowledge that airports are in a unique situation with respect to wildlife attractants. We all kind of nod our heads but at the same time the airport has been participating in the regional workshops on sea level rise which has led up to where we are now with amending the Bay Plan. And intuitively people understand birds and aircraft they don't get along. The whole regional conversation and dialogue has been on nature-based restoration. This is great that we can include this.

The airport is between a rock and a hard place in that the airport is required by federal regulations through the FAA to be the spokesperson for this issue. But there are regulatory requirements that don't look at the fine details that you are raising. Well maybe there are with respect to oyster reef restoration—I've heard that and we had those discussions and we talked about our upcoming project with the shoreline protection. And when we look at the pilot programs for the oyster reef restorations and in bird services, we do see that it does attract large mass of birds that might be of concern to the airport. But we are open to continue that dialogue. It is just that we are not totally convinced and we haven't seen something that clearly says, we can put something in that is nature-based that should concern you.

Our first level of priority is that – safety first. Or just for the confidence of the passengers that use our facility and for the region. And so that is where we need to start and so from there we can have those discussions but we need a lot of convincing. And we need to confer with the Bay community and be sure that they are on board because ultimately that is who we have to respond to.

Chair Nelson chimed in: So does this language that says airports may be exempt from incorporating certain, natural and nature-based features; does that language create problems for you?

Mr. Lam replied: It opens the question that – we had proposed more definitive language. And so this is a change from that. But we would prefer the stronger language because as I said it is a higher bar that we have to meet with the FAA.

Mr. Buehmann chimed in: My question has always been—and we’ve had discussions about this in the past—why can’t that be part of the permit application and part of the permit process? And why does it need to be policy? And so we’ve had discussions about this and we’ve always said – you know if you have that data and a lot of other applicants have similar sort of constraints where they have other requirements by federal entities or something or have some kind of constraint because of bird and aircraft conflicts; and what they do is they submit with their application those concerns and we look at them and say, okay that sounds good—why does it need to be a policy?

Mr. Lam replied: Because we tend to –

Mr. Wibowo interjected: I want to speak to that. I think Shannon brought up the point that the Bay Plan is a passive tool and is there when an applicant comes. So, if the language is not there we can’t point to it and I think we need that to talk about it.

Mr. Buehmann responded: But the language was already there. It should require the design of the authorized protection projects and include provisions for establishing marsh and transitional uplands wherever feasible. And I think it originally said, whenever feasible and appropriate. And so, when we had our discussions in the past we would say, well you know it is probably not feasible and appropriate to have certain kinds of nature-based solutions by airports. And that should be easy to establish I would think if you have the data or the information and then you would just do it through the application process. I am not challenging that it isn’t or it shouldn’t be a policy or that they are saying that is feasible and appropriate to do that.

Commissioner McGrath commented: I think this is a bit of tempest in a teapot. I spent 16 years with an airport that had any number of seasonal wetlands within it that posed issues. And what the airport was required to do was haze the birds. And they had no rationale under the Clean Water Act to fill all those wetlands. They didn’t have a program although they thought they did to fill them and use them for constructive purposes and adequately mitigate it.

So airports are seriously constrained on dealing with these things. I think the language is fine. I think the issue for airports is making sure the fill to make them resilient goes on the inside not on the outside as mitigated.

I don’t think it is a big deal one way or the other. I don’t want the higher levees encroaching seaward but I also— you’re not going to convince the FAA to not require them to haze birds.

Chair Nelson chimed in: I have two thoughts here. The first is even if every nature-based solution up there didn't work right now within the airports and the airports could be exempted from every one of the examples up there; we don't know what nature-based solutions we're going to be developing in the next 20 years. So a blanket exemption to me doesn't make sense. So a question for you folks at the airport – it may be that every example up there is a real problem for you or certain of them might work under very constrained circumstances and certain of them would never work.

You are right in that the Commission doesn't apply these unless you come to us with a permit. But there is nothing if the FAA has concerns about this, there is nothing that would prevent you from coming to the Commission and saying hey we believe that the following constraints mean that these nature-based solutions don't work for us. Erik would you be able to respond to that in a way that would help them with the FAA?

Mr. Buehmann asked for clarification: What that they would come in and say that they

Chair Nelson interjected: What I am thinking if the FAA says we hate these nature-based solutions. (Laughter)

Mr. Buehmann replied: You cannot have a certified airport if you have – yes, I mean that's the way it is. I mean what are we going to do about that?

Mr. Wibowo commented: Well can we just shift the conversation a little bit. And the nuance of the ecosystem benefits – if we did have a project we would be looking at a more reasonable solution for the regional benefit and that it could actually offset absolutely trying to do something at the airport which is not good for birds and planes as a public-safety issue which is why we brought up that this kind of project could cause issues of potential for bird strikes. Currently we do track bird strikes at the airport and the amount of flights that come in and out and it is a huge issue for us.

Mr. Buehmann replied: But for a lot of projects that is how you do it. You look at your alternatives and you say – okay we will look at this nature-based solution and the FAA hates it and it is going to increase birds, it is going to be terrible, not a good idea; so instead of doing that we are going to do this other solutions and as a mitigation but also to offset the impacts we are doing other stuff regionally. It also doesn't necessarily mean your project has to self-mitigate or something like that.

Mr. Lam commented: SFO comes to BCDC every year practically with multiple permits and having this language in here so that your analysts don't have to be re-educated every time would be very helpful. But starting with this baseline in there would be very helpful.

Mr. Buehmann stated: Then you don't have to repeat yourself every time.

Chair Nelson asked: So where do we go with this?

Ms. Malinowski chimed in: Our agency is doing the oyster reef experiment throughout the Bay and also on birds and habitats and certain species have been attracted to those oyster reefs as well as wave attenuation potential. I appreciate the partnership with you guys. We are

definitely sensitive to the bird strike issue. We are happy to help with our habitat conservation partners if there is detail or information we could give you.

It would be cool in the future if we did find out oyster reefs weren't a huge issue for you. The wave attenuation benefit could actually help maybe decrease the height of your seawalls. I know that we are going to face a lot of sea level rise and we're going to have to come up with some super innovative solutions. Right now in general we are dealing with sea level rise we are dealing with a lot of false tradeoffs and we think we have more choices than we do. I think we're going to end up with more Bay than we want. We will over the next couple of decades have to make a lot of compromises on the habitat and on the infrastructure side as we grapple with the speed at which sea level rise will continue to happen. I would encourage any sort of way to protect humans while also leaving the door open for any sort of feature that might work and be safe.

Ms. Hall replied: I agree with that. We don't know what is going to happen in the future and what innovative solutions could come about that could very easily not attract birds and be much more focused on subtidal benefits.

Mr. Lam added: And the airport's operations could change. In light of the conversation here we don't want to come across as the bad guys. We want to work and look at these situations and the cases that might be feasible. I just have to tell you that the FAA has been less tolerant with us. (Laughter) I think this language is a good compromise and it is in there and it is acknowledged and in the future we can all look at science and decide what the best is at that time.

Ms. Hall continued: The last item that Brenda had already addressed briefly is about ability to raise berms and levees. We didn't express it so explicitly, but you had that discussion, and the other policy that we didn't get to is ok to skip for now.

4. Timeline/Next Steps. Ms. Hall continued: Shannon had already outlined a lot of this at the beginning, but we are going to take what we heard from all of you and what we heard from our regulatory staff in the past couple of weeks and try to further refine these policies in late July and early August. We are going to continue to have additional regulatory staff meetings once we've come up with some changes to that language and try with the regulatory staff to change that language.

Then we have a Bay Fill Working Group meeting on August 15th to ideally come to a final agreement on what we are going to put into our final staff recommendation.

We have the vote on this scheduled for September 19th and according to our regulations we would have to publish the final staff recommendation six days in advance of that so no later than September 13th.

Ideally we would want to bring both of the amendments BPA 3-19 and this one to a vote on that same day. The public hearing for BPA 3-19 is scheduled for September 5th meaning that the staff report and preliminary recommendation on that would come out no later than August 5th.

Chair Nelson stated: So any changes to the Bay Plan Map for the 5th has to come out eight to ten days before that if there are any changes.

Ms. Hall noted: Our staff report on that has to come out 30 days in advance.

5. Adjournment. There being no further business Chair Nelson adjourned the meeting at 12:34 p.m.